

## LISTING OF THE CLAIMS

**Claim 1 (currently amended):** A method for communicating at least one of vehicle speed and vehicle length information gathered from a vehicle detector, said method comprising the steps of:

- a) measuring at least one of a vehicle speed and a vehicle length using a ~~first~~ vehicle detector during a first vehicle detection event;
- b) constructing a first output pulse corresponding to said first vehicle detection event;
- c) outputting said first output pulse on a first output channel ~~corresponding to~~ associated with said ~~first~~ vehicle detector;
- d) ~~inferring from at least one of said speed and said vehicle length information a second vehicle detection event for a second vehicle detector~~ from at least one of vehicle speed and a vehicle length obtained from said first vehicle detection event;
- e) constructing a second output pulse corresponding to said second vehicle detection event; and
- f) outputting said second output pulse on a second output channel ~~corresponding to said second vehicle detector.~~

**Claim 2 (original):** The method of claim 1 wherein said first output pulse comprises a first pulse-width, and wherein said second output pulse comprises a second pulse-width; and wherein said second pulse-width is substantially equal to said first pulse-width.

**Claim 3 (currently amended):** The method of claim 1 wherein said first output pulse comprises a first start-time, and wherein said second output pulse comprises a second start-time; and wherein the difference between said second start-time and said first start-time is chosen to ~~be~~ substantially correspond to the quotient of a hypothetical offset distance ~~between said first and second vehicle detectors~~ divided by said vehicle speed, said hypothetical offset distance measured from said vehicle detector.

**Claim 4 (cancelled)**

**Claim 5 (currently amended):** An apparatus for communicating at least one of vehicle speed and vehicle length information gathered from a vehicle detector, said apparatus comprising:

a) a means for measuring at least one of vehicle speed and a vehicle length during a first vehicle detection event;

b) a means for constructing a first output pulse corresponding to said first vehicle detection event;

c) a means for outputting said first output pulse on a first output channel corresponding to said ~~first vehicle detector~~ means for measuring;

d) a means for inferring ~~from at least one of said speed and said vehicle length information~~ a second vehicle detection event ~~for a second vehicle detector~~ using at least one of said speed and said vehicle length obtained from said first vehicle detection event;

e) a means for constructing a second output pulse corresponding to said second vehicle detection event; and

f) a means for outputting said second output pulse on a second output channel ~~corresponding to said second vehicle detector~~.

**Claim 6 (currently amended):** The apparatus of claim ~~1-5~~ wherein said first output pulse comprises a first pulse-width, and wherein said second output pulse comprises a second pulse-width; and wherein said second pulse-width is substantially equal to said first pulse-width.

**Claim 7 (currently amended):** The apparatus of claim ~~1-5~~ wherein said first output pulse comprises a first start-time, and wherein said second output pulse comprises a second start-time; and wherein the difference between said second start-time and said first start-time is chosen to ~~be~~ substantially correspond to the quotient of a hypothetical offset distance ~~between said first and second vehicle detectors~~ divided by

said vehicle speed, said hypothetical offset distance measured from said vehicle detector.

**Claim 8 (cancelled)**

**Claim 9 (new):** A method for communicating at least one of vehicle speed and vehicle length information gathered from a vehicle detector, said method comprising the steps of:

- a) measuring at least one of vehicle speed and a vehicle length using a first vehicle detector during a first vehicle detection event;
- b) constructing a first output pulse corresponding to said first vehicle detection event;
- c) outputting said first output pulse on a first output channel corresponding to said first vehicle detector, said first output pulse comprising a first pulse-width;
- d) inferring from at least one of said speed and said vehicle length information a second vehicle detection event for a second vehicle detector;
- e) constructing a second output pulse corresponding to said second vehicle detection event, said second output pulse comprising a second pulse-width, said second pulse-width being substantially equal to said first pulse-width; and
- f) outputting said second output pulse on a second output channel corresponding to said second vehicle detector.

**Claim 10 (new):** A method for communicating at least one of vehicle speed and vehicle length information gathered from a vehicle detector, said method comprising the steps of:

- a) measuring at least one of vehicle speed and a vehicle length using a first vehicle detector during a first vehicle detection event;
- b) constructing a first output pulse corresponding to said first vehicle detection event, said first output pulse comprising a first start-time;

c) outputting said first output pulse on a first output channel corresponding to said first vehicle detector;

d) inferring from at least one of said speed and said vehicle length information a second vehicle detection event for a second vehicle detector;

e) constructing a second output pulse corresponding to said second vehicle detection event, said second output pulse comprising a second start-time, a difference between said second start-time and said first start-time being chosen to substantially correspond to the quotient of a hypothetical offset distance between said first vehicle detector and the second vehicle detector divided by said vehicle speed; and

f) outputting said second output pulse on a second output channel corresponding to said second vehicle detector.

**Claim 11 (new):** An apparatus for communicating at least one of vehicle speed and vehicle length information gathered from a vehicle detector, said apparatus comprising:

a) a means for measuring at least one of vehicle speed and a vehicle length during a first vehicle detection event;

b) a means for constructing a first output pulse corresponding to said first vehicle detection event, said first output pulse comprising a first pulse-width;

c) a means for outputting said first output pulse on a first output channel corresponding to said first vehicle detector;

d) a means for inferring from at least one of said speed and said vehicle length information a second vehicle detection event for a second vehicle detector, said second output pulse comprising a second pulse-width, said second pulse-width being substantially equal to said first pulse-width;

e) a means for constructing a second output pulse corresponding to said second vehicle detection event;

f) a means for outputting said second output pulse on a second output channel corresponding to said second vehicle detector.

**Claim 12 (new):** An apparatus for communicating at least one of vehicle speed and vehicle length information gathered from a vehicle detector, said apparatus comprising:

a) a means for measuring at least one of vehicle speed and a vehicle length during a first vehicle detection event;

b) a means for constructing a first output pulse corresponding to said first vehicle detection event, said first output pulse comprising a first start-time;

c) a means for outputting said first output pulse on a first output channel corresponding to said first vehicle detector;

d) a means for inferring from at least one of said speed and said vehicle length information a second vehicle detection event for a second vehicle detector, said second output pulse comprising a second start time, a difference between said second start-time and said first start-time being chosen to substantially correspond to the quotient of a hypothetical offset distance between said first vehicle detector and the second vehicle detector divided by said vehicle speed;

e) a means for constructing a second output pulse corresponding to said second vehicle detection event; and

f) a means for outputting said second output pulse on a second output channel corresponding to said second vehicle detector.